

# **nascom**

# **approved product**

**Lucas Logic**



## **Nascom Approved Product Scheme**

Established by Lucas Logic to evaluate the extensive ranges of Nascom-compatible hardware and software offered by manufacturers and dealers worldwide. The seal of approval is granted only to products which are:

- a worthwhile enhancement to the Nascom system.
- of good quality and documented to a high standard.
- reliable, sensibly priced and with good after-sales support.

# nascom

## **Kenilworth Case**

The Kenilworth Case is a professional case designed specifically for Nascom 2 and up to four additional Nascom 8 inch by 8 inch cards. It has hardwood side panels and a plastic-coated steel base and cover. A fully cut back panel will accept a fan, UHF and video connectors and up to 8 D-type connectors. The basic case accepts the Nascom 2 board, power supply and keyboard. The optional support kits allow expansion to 2 or 5 boards in total.

*(Business and Leisure Microcomputers)*

## **Castle Interface Unit**

The Castle Interface is a built and tested add-on unit which suppresses cassette input except when tape read is enabled, and adds motor control facilities for the tape unit. It also automatically switches output between cassette and printer, simplifies 2400 baud cassette operation and provides an RS232 handshake for those printers requiring it.

*(Business and Leisure Microcomputers)*

## **Programmer's Aid**

For Nascom ROM BASIC running under NAS-SYS. Supplied in 2 off 2708 EPROM's. Features include: auto line numbering, line renumbering, program appending, recompression of reserved words, auto repeat and printer handshake routines. State whether NAS-SYS 1 or NAS-SYS 3 version when ordering.

*(Bits and PC's)*

## **Basic Programmer's Aid**

For Nascom ROM BASIC running under NAS-SYS. Supplied on tape. Features include: auto line numbering, full cross reference listing, block delete, find, compacting and a comprehensive line re-numbering facility.

*(Henry's Radio)*

## **Screenplus**

Mounts on the main board of a Nascom 2 computer and provides enhanced display facilities including selective reverse video and screen blanking. It requires connection to one 8-bit output port of a PIO.

*(Business and Leisure Microcomputers)*

## **Sargon Chess Pack**

This pack includes the Sargon book and a tape with Sargon prepared to run under NAS-SYS. Also included is a special graphics EPROM and a PCB giving the ability to switch manually between the usual graphics ROM and the chess graphics.

*(Bits and PC's)*

## **Soundbox Programmable Sound Generator**

The Soundbox connects to the PIO of a Nascom computer. It includes an on-board amplifier and 3 inch loudspeaker, volume control, reset button and connections for a stereo hi-fi system. 3 sound channels independently controlled by an AY-3-8910 chip are provided, with a crystal controlled oscillator. A simple operating system and demonstration software are provided on tape, allowing the user to program tunes and other sounds quickly and easily in BASIC. Comprehensive documentation is included.

*(PHG Electronics)*

## **EPROM Programmer**

The EPROM programmer connects to the PIO of a Nascom computer and allows programming of 2708 and 2716 EPROM's.

*(Bits and PC's)*

## **EPROM Programmer**

A more sophisticated EPROM programmer is also available which allows programming of 2708, 2716, 2516, 2758, 2508, 2732 and 2532 EPROM's. The programmer connects to the PIO.

*(I/O Systems Ltd)*

## **Milham Analogue to Digital Converter**

The Milham is an 8-bit 4 channel analogue to digital converter which operates at speeds up to 4 KHz. The sensitivity is adjustable and support software is supplied with the unit. The unit connects to the Nascom via the PIO.

*(Business and Leisure Microcomputers)*



# approved product

## Speech Board

The speech board uses the National Semiconductors 'Digitalker' chip, and provides 256 expressions including words and sub-words which allow the vocabulary to be expanded by the user. The board includes an audio amplifier and 2 inch loudspeaker.

*(Anfor Microelectronics Ltd)*

## Crystal Basic

Crystal Basic is an 8K interpretive Basic written in Z80 code. Most facilities provided are similar to Nascom ROM Basic. However, a very useful additional feature is included which allows the user to add his own instructions to the Basic language by writing appropriate machine code routines. Crystal Basic is normally supplied on tape and is hence RAM resident. Instructions for adding to the standard Basic language are included in the manual.

*(Crystal Electronics)*

## Screen Weave Eliminator

This 'piggy-back' board fits onto the Nascom 2 main board and adjusts the screen refresh frequency to nearer 50 Hz. This has the effect of eliminating any tendency of a display to weave during operation due to frequency differences.

*(EDAC Engineering)*

## Screen Flash Eliminator

Another 'piggy-back' board for use with the Nascom 2. In this case it eliminates the contention between the processor and screen refresh circuitry for access to the video memory, which can appear as dark flashes on the screen of a normal Nascom 2, particularly when displaying large quantities of graphics characters. Removing the contention requires the processor to wait when screen access is required, but this is done in a highly efficient manner, and the effect on processing speed is negligible.

*(EDAC Engineering)*

## MBE ROM BASIC Expander

This package simplifies the adding of further features to ROM BASIC via the USR function. This enables the USR call to include the name of the function to be performed, together with an argument list, increasing program legibility over the usual methods of using function numbers. The function names and addresses are declared in the program by means of the USR (ADDCOM) function. Standard features included in the package are a keyboard GET operation and a function to list the added 'commands'. There is the usual restriction that the added 'commands' must not include reserved words.

*(M York)*

## Double Precision Arithmetic for ROM BASIC

This package performs exactly the function which the title suggests. It interfaces with BASIC via MBE. Operations provided are: +, -, \*, and /, together with conversion between single and double precision. To use the functions they are specified after a USR(DP) call in a particular format—the package does not enable ordinary BASIC LET statements to be used to perform double precision arithmetic.

*(M York)*

## Hullforth

A compact implementation of the programming language FORTH (registered trademark of FORTH Inc) running on a Nascom. *(A F T Winfield and P S Cain)*

## Adventure

A compact version of the popular game running in 16K of RAM under the NAS-SYS operating system.

## Keys of Kraal

An entertaining and action packed adventure game with good graphics.

*(Program Power)*

## Machine Code Programming for the Nascom 1 and 2

This book provides a good introduction to programming in machine code and assembler on Nascom microcomputers.

*(Interface Components)*

# **nascom**

# **approved product**

Whilst every effort is made to ensure the quality and suitability of Nascom Approved Products, Lucas Logic Ltd cannot accept any liability of any nature for such products. Due to a policy of continued development, the right to change specifications and prices without notice is reserved.

Products are constantly under review so refer to your local dealer for further details.

Lucas Logic Limited  
Nascom Microcomputers Division,  
Welton Road,  
Wedgnock Industrial Estate,  
Warwick  
CV34 5PZ  
England  
© Lucas Logic Limited  
November 1981

**Lucas Logic**

